

What is claimed is:

- 1 1. A method of performing a location service with respect to a mobile station,
2 comprising:
3 communicating a paging message in a mobile communications network
4 containing an indication of whether the paging message is related to at least one of an
5 emergency-related location service and a law enforcement-related location service;
6 and
7 communicating information regarding the location of the mobile station.
- 1 2. The method of claim 1, wherein communicating the paging message
2 comprises a base station sending a page containing the indication to a mobile station.
- 1 3. The method of claim 2, wherein sending the page containing the indication
2 comprises sending one of a general page message (GPM) containing the indication
3 and a universal page message (UPM) containing the indication.
- 1 4. The method of claim 3, wherein sending the page comprises sending the page
2 containing a first information element to identify service option 35 or service option
3 36, and a second information element to indicate whether the page is related to the
4 emergency-related location service or law enforcement-related location service.
- 1 5. The method of claim 4, further comprising a base station setting a state of the
2 second information element based on a state of a field in a paging request from a
3 mobile switching center indicating whether the paging request is related to the
4 emergency-related location service or the law enforcement-related service.
- 1 6. The method of claim 1, wherein communicating the paging message
2 comprises sending a paging request containing the indication from a mobile switching
3 center to a base station.
- 1 7. The method of claim 6, wherein sending the paging request comprises sending
2 an IS-2001 paging request containing the indication.

- 1 8. The method of claim 6, further comprising:
2 the mobile switching center receiving a position request containing a field
3 indicating whether the position request is related to at least one of the emergency-
4 related location service and the law enforcement-related location service; and
5 the mobile switching center setting a state of the indication in the paging
6 request based on the field contained in the position request.
- 1 9. The method of claim 8, wherein receiving the position request comprises
2 receiving an InterSystemPositionRequest INVOKE (ISPOSREQ) message containing
3 a CTYP field, the CTYP field indicating whether the position request is related to at
4 least one of the emergency-related location service and the law enforcement-related
5 location service.
- 1 10. The method of claim 6, further comprising the mobile switching center
2 receiving a position request capable of containing a field indicating whether the
3 position request is related to at least one of the emergency-related location service and
4 the law enforcement-related location service; and
5 the mobile switching center setting a state of the indication in the paging
6 request based on absence of the field in the paging request.
- 1 11. The method of claim 1, further comprising sending a position determination
2 data message (PDDM) containing an indication of whether the PDDM is related to at
3 least one of an emergency-related location service and a law enforcement-related
4 location service.
- 1 12. The method of claim 11, wherein sending the PDDM message comprises
2 sending an TIA/EIA/IS-801 PDDM message.
- 1 13. The method of claim 11, further comprising:
2 receiving a position request containing a field indicating whether the position
3 request is related to at least one of the emergency-related location service and the law
4 enforcement-related location service; and

5 setting a state of the indication in the PDDM based on a state of the field in the
6 position request.

1 14. The method of claim 13, wherein receiving the position request containing the
2 field comprises receiving a GeoPositionRequest INVOKE (GPOSREQ) message
3 containing a CTYP field.

1 15. The method of claim 1, further comprising:
2 receiving the paging message by the mobile station that is not on a traffic
3 channel and that is configured to accept an emergency-related location service or a
4 law enforcement-related location service but not a value-added service location
5 service; and
6 the mobile station responding to the paging message by sending a page
7 response with one of service option 35 and 36.

1 16. The method of claim 15, further comprising the mobile station determining, by
2 examining the paging message, that a location service-related service option requested
3 in the paging message should be accepted, based on association of the paging message
4 with either an emergency-related location service or a law enforcement-related
5 location service.

1 17. The method of claim 1, wherein the mobile station is not on a traffic channel
2 and is configured to accept only an emergency-related location service or a law
3 enforcement-related location service, the method further comprising:
4 the mobile station communicating position determination data messages
5 (PDDMs) on an assigned traffic channel with a position determination entity (PDE);
6 the mobile station determining whether one or more received PDDMs are
7 related to the emergency-related location service or law enforcement-related location
8 service; and
9 in response to determining that the one or more received PDDMs are related to
10 the emergency-related location service or law enforcement-related location service,
11 the mobile station accepting request elements in the one or more received PDDMs.

1 18. An article comprising at least one storage medium containing instructions that
2 when executed cause a mobile station in a wireless communications network to:
3 communicate messaging to move the mobile station to a traffic channel in
4 response to a callback by at least one of an emergency services entity and a law
5 enforcement entity;
6 receive a location request on the traffic channel containing an indication of
7 whether the location request is related to at least one of an emergency-related location
8 service and a law enforcement-related location service; and
9 send location information of the mobile station in response to the location
10 request.

1 19. The article of claim 18, wherein receiving the location request comprises
2 receiving a position determination data message (PDDM) containing the indication.

1 20. The article of claim 18, wherein the mobile station has been configured to
2 accept an emergency-related location service or a law enforcement-related location
3 service but not a value-added service location service,
4 the instructions when executed causing the mobile station to determine
5 whether to accept the location request based on the indication contained in the
6 location request,
7 wherein sending the location information is performed in response to
8 determining that the location request is to be accepted.

1 21. The article of claim 18, wherein the instructions when executed cause the
2 mobile station to further:
3 receive a page from a base station, the page containing an indication that the
4 page is associated with at least one of an emergency-related location service and a law
5 enforcement-related location service; and
6 respond to the page by accepting a service option of the page based on the
7 indication.

- 1 22. A system comprising:
2 an interface to communicate a paging message; and
3 a controller to set an indication in the paging message for indicating whether
4 the paging message is related to at least one of an emergency-related service and a
5 law enforcement-related location service.
- 1 23. The system of claim 22, wherein the controller is adapted to send the paging
2 message to a mobile station in response to an idle-mode query initiated by an
3 emergency services entity to a mobile station.
- 1 24. The system of claim 22, comprising a mobile switching center including the
2 interface and controller, wherein the paging message comprises a paging request sent
3 from the mobile switching center to a base station.
- 1 25. The system of claim 22, comprising a base station including the interface and
2 controller, wherein the paging message comprises a page from the base station to the
3 mobile station.
- 1 26. The system of claim 22, wherein the controller is adapted to send data over a
2 traffic channel, the data comprising a position determination data message (PDDM)
3 containing an indication of whether the PDDM is related to emergency services.
- 1 27. A mobile station comprising:
2 an interface to receive a page containing an indication of whether the page is
3 related to at least one of an emergency-related location service and a law
4 enforcement-related location service; and
5 a controller to respond to the page based on the indication.
- 1 28. The mobile station of claim 27, wherein the mobile station is configured to
2 accept a service option specified by a page relating to an emergency-related location
3 service or a law enforcement-related location service, but not to accept another
4 service option specified by a page relating to a value-added location service,

5 the controller to accept the page in response to the indication indicating that
6 the page is related to the emergency-related location service or law enforcement-
7 related location service.

1 29. The mobile station of claim 28, wherein the page contains a first information
2 element to indicate that the page is location-related, and a second information element
3 to indicate that the page relates to an emergency service or a law enforcement service.

1 30. The mobile station of claim 27, comprising one of a mobile phone, a portable
2 computer with a wireless modem, a wireless-enabled personal digital assistant
3 (PDAs), and a global positioning system (GPS) device.